CLAIMS

What is claimed is:

1. A method for performing motion estimation comprising:

receiving a stream of data comprising at least a predicted frame and an anchor frame; and

utilizing even-parity field prediction to predict content of each of a plurality of fields of the predicted frame from corresponding fields of the anchor frame.

2. The method of claim 1, wherein the content of each of the plurality of fields of the predicted frame are predicted merely from a corresponding field of the plurality of fields comprising the anchor frame, scaled by a dynamically determined motion vector.

3. The method of claim 2, wherein the motion vector is dynamically determined by measuring activity within each of the plurality of fields of the anchor frame.

4. The method of claim 1, wherein the predicted frame either precedes or supersedes the anchor frame based, at least in part, on the predicted frame type.

5. The method of claim 1, wherein each of the predicted and anchor frames contain interlaced video content or progressive video content.

6. The method of claim 5, wherein a first field of the predicted frame and the anchor frame comprises even-field content of the interlaced video content, and a second field of the predicted frame and the anchor frame comprises odd-field content of the interlaced video content.

7. The method of claim 5, wherein a first field of the predicted frame comprises even-field content of the interlaced video content and a first field of the anchor frame comprises odd-field content of the interlaced video content.

8. The method of claim 5, wherein a first field of the predicted frame comprises odd-field content of the interlaced video content and a first field of the anchor frame comprises even-field content of the interlaced video content.

9. The method of claim 1, wherein one or more motion estimation vectors are generated for each of the plurality of fields of the anchor frame by measuring a sum of absolute differences.

10. The method of claim 1, wherein even-field interlaced video content of the predicted frame is predicted from even-field interlaced video content of the anchor frame, and odd-field interlaced video content of the predicted frame is predicted from odd-field interlaced video content of the anchor frame.

11. The method of claim 10, wherein the even-field interlaced video content of the predicted frame is predicted from the even-field interlaced video content of the anchor frame and a motion vector, wherein the motion vector is determined by measuring a sum of absolute differences within the even-field interlaced video content of the anchor frame.

12. An apparatus comprising:

a motion estimation circuit to receive a stream of data comprising at least an anchor frame and a predicted frame, and to utilize even-parity field prediction to predict content of each of a plurality of fields of the predicted frame from corresponding fields of the anchor frame.

13. The apparatus of claim 12, wherein the anchor frame used either precede or supersede the predicted frame depending on predicted frame type.

14. The apparatus of claim 12, wherein the motion estimation circuit measures activity content within each of the plurality of fields of the anchor frame to generate a corresponding plurality of motion vectors.

15. The apparatus of claim 14, wherein the motion estimation circuit predicts content of a first in the predicted frame from content of a corresponding first field in the anchor frame and a first field motion vector, and predicts content of a second field in the predicted frame from a corresponding second field and a second field motion vector.

16. The apparatus of claim 12, wherein the predicted frame and anchor frame are comprised of interlaced video content, wherein a first field of each of the predicted frame and the anchor frame contain even-field interlaced video content, while a second field of each of the predicted frame and the anchor frame contain odd-field interlaced video content.

17. The apparatus of claim 12, wherein motion estimation circuit generates a motion vector for each of a first and second field of the predicted frame by measuring a sum of absolute activity differences in a corresponding first and second field of the anchor frame.

SUBA

18. A storage medium comprising a plurality of executable instructions which, when executed, causes an executing processor to implement a motion estimation function to utilize even-parity field prediction to predict content of each of a plurality of fields of a predicted frame form corresponding fields of one or more anchor frames.

19. The storage medium of claim 18, wherein the motion estimation function generates a motion vector associated with each of the plurality of fields of the predicted frame based, at least in part, on a sum of absolute activity differences within each of the plurality of fields of the anchor frame.

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